

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Brush Creek

Water Body ID: 1371

Water Body Segment at a Glance:

Counties: Polk and St. Clair
Nearby City: Humansville
Length of segment: 4.7 miles
Pollutants: Low Dissolved Oxygen
Source: Humansville Wastewater Treatment Facility



State map showing location of watershed

Scheduled for TMDL Development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. Brush Creek is impaired due to exceedances of the water quality criteria for the protection of aquatic life.

Designated uses of Brush Creek*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

Designated use that are impaired

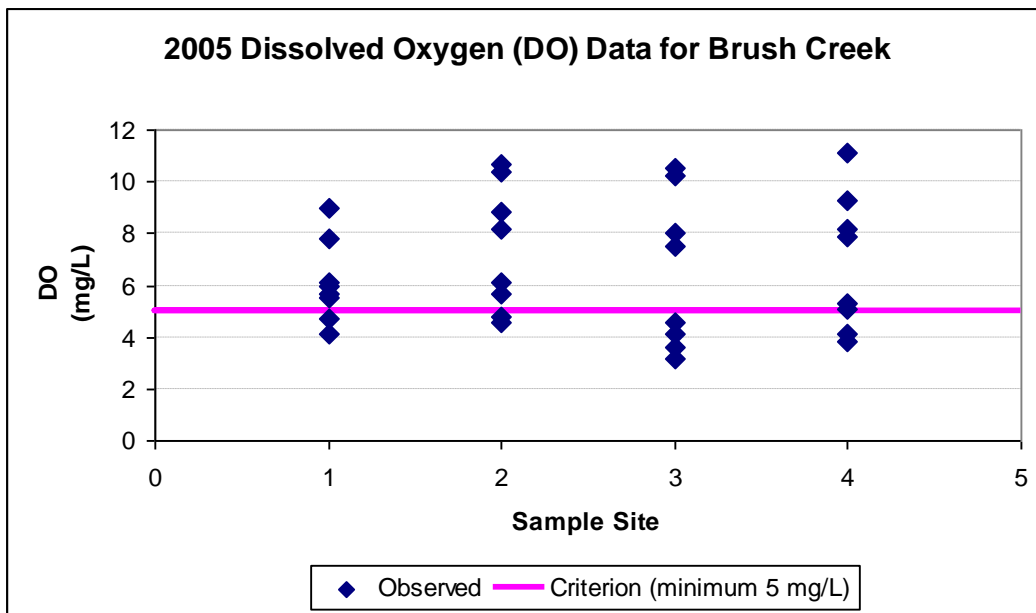
- Warm Water Habitat (WWH)

Criteria that apply

- The Missouri water quality criterion found in 10 CSR 20-7.031 Table A, for dissolved oxygen is a minimum of 5 milligrams per liter (mg/L).

Assessment and water quality data

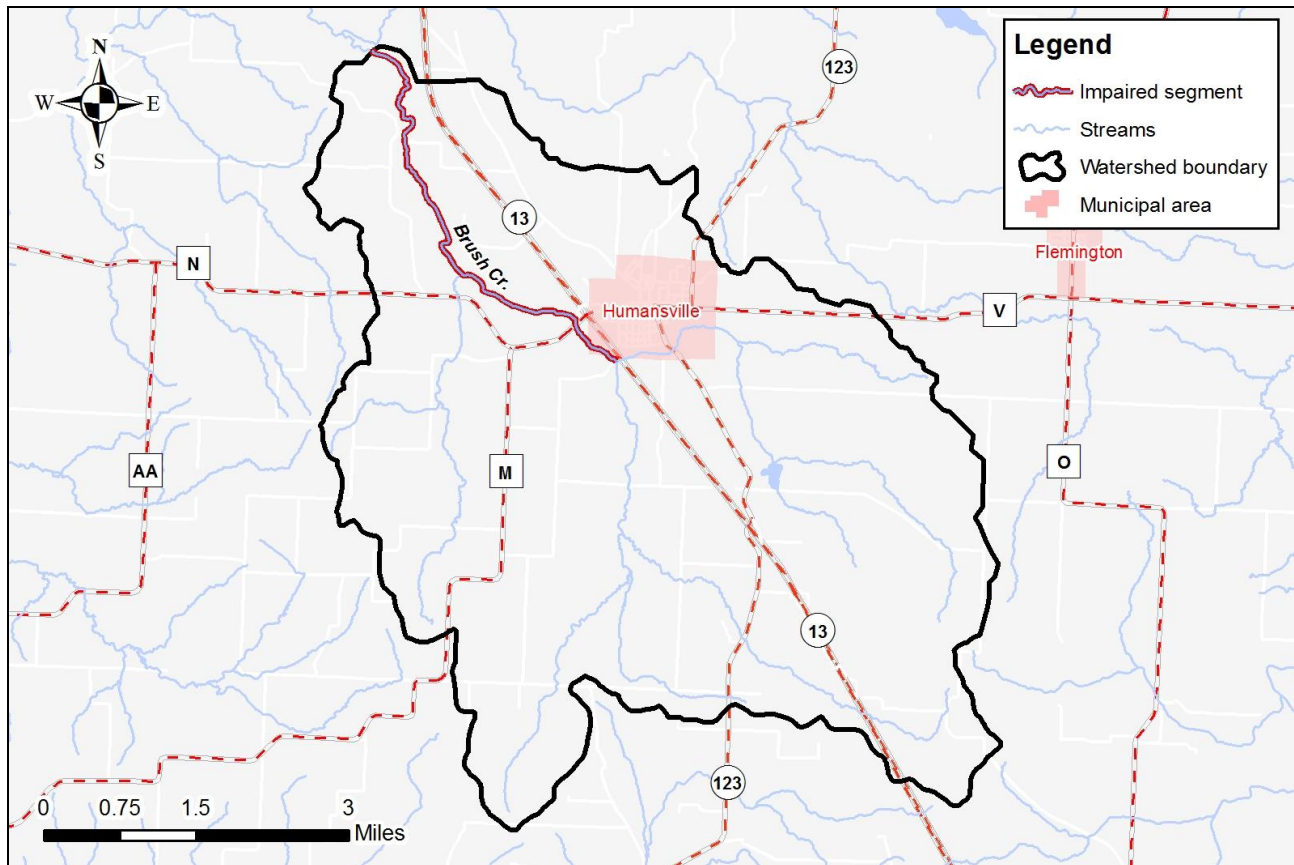
The department has monitored Brush Creek on several occasions. In the last few years, the Humansville Wastewater Treatment Facility has had chronic problems with inadequate treatment of wastewater. Wastewater and stormwater runoff with a high biochemical oxygen demand reduces the amount of dissolved oxygen in a stream's water. Most aquatic organisms require high levels of oxygen to survive. A water body is judged to be impaired due to low dissolved oxygen if more than ten percent of water quality measurements fall below the dissolved oxygen criterion. The most recent dissolved oxygen data were collected from Brush Creek in 2005 and 2010. For this segment of Brush Creek, 25 percent of the samples collected had dissolved oxygen concentrations below 5 mg/L. All recorded violations of the dissolved oxygen criterion occurred in 2005 (see figure below).



TMDL for Brush Creek

The Brush Creek TMDL will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, the Brush Creek TMDL will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

Map of the Brush Creek Watershed



For more information call or write:

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